Explaining Variation in Title Charges:

A Study of Five Metropolitan Real Estate Markets

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Abstract

Title charges include title insurance premiums and other fees involved in closing a mortgage loan. Title charges vary considerably from a median of $1,971 in California to $625 in North Dakota. This study analyzes variation in title charges using data from over 3,000 FHA-insured, 30-year fixed-rate home purchase loans in five metropolitan areas. Even after controlling for metropolitan area, various characteristics of homebuyers, houses, neighborhoods, and settlement agencies, more than one-half of the variation in title charges remains unexplained. Substantial differences in title charges between settlement agents within a market suggest that consumers would benefit by shopping for settlement services.

I. Introduction

Title charges include the costs of performing a title search, preparing a title insurance binder, attorney or other settlement agent fees, the cost of the insurance against title defects covering the lender and (often) the owner, and other fees related to processing the title insurance policy. Establishing that a seller has legitimate ownership of his or her property is essential to the smooth operation of real estate transactions, given the large share of household wealth tied up in property (GAO 2007). Title insurance also merits attention because it represents a substantial proportion of real estate closing costs paid by consumers and adds significantly to the cost of purchasing a home.

Title charges vary considerably across the nation.[1] Woodward (2008) finds that nationally, title charges averaged $1,200 per loan for FHA-insured loans in 2001. The GAO's (2007) study of the industry identifies a wide range of premiums, the major component of title charges, from an average of $700 in Des Moines, Iowa, to an average of $2,190 in New York City. Title charges are also an important component of the wider array of closing costs. A widely cited, regularly conducted survey of closing costs by bankrate.com consistently concludes that the substantial variation in title insurance charges across real estate markets accounts for much of the observed variation in closing costs (Lewis 2010).

Although some studies examined factors associated with variation in total real estate closing costs (Birnbaum 2005; GAO 2007; Woodward 2008), little is known on what factors explain the wide variation in title charges, an important component of the closing costs. McKernan et al. (2009) find that although the largest component of closing costs is the lender fee, a substantial cost, with a median value of $1,284, was attributable to title insurance and related settlement

services. Woodward (2008) finds that title charges rise with loan amount. While the risk associated with title defects rises with the loan amount, payments for title claims account for such a small share of the premium that the effect of loan size on premiums should be minimal. This pattern can be interpreted as either price discrimination against owners of higher-valued properties or subsidization of insurance for owners of lower-valued properties. In addition, the modest discounts given to customers who are refinancing or buying recently sold properties (which should have substantially lower title search costs) can also be viewed as indicators of price discrimination and market power (Eaton and Eaton 2007).

Title charges not only vary widely across markets, but also vary considerably within a metropolitan area. This study uses data from over 3,000 FHA-insured, 30-year fixed-rate home purchase loans from 2001 in counties covering five major metropolitan real estate markets to examine the determinants of variation in title charges faced by consumers within each area. To our knowledge this is the first paper that examines variation in title charges within metropolitan areas, controlling for characteristics of homebuyers, houses, neighborhoods, and settlement agencies. The five metropolitan areas studied (Cook County, Illinois; Philadelphia County, Pennsylvania; Broward County, Florida; Maricopa County, Arizona; and Sacramento County, California) have very different regulatory and institutional environments. Qualitative interviews with market participants (settlement agents, underwriters, academic and legal experts) inform the empirical model and interpretation of the regression analyses. Multivariate regression analysis provides insights into the role of market specific institutions in shaping the title charges.

The title insurance industry is primarily regulated at the state level, with regulations often focused on premium rates. Of the five markets studied in this paper, only Cook County (located in and subject to Illinois law) has no regulation of premiums. Twenty-one states, including

Arizona and California (studied here) have file and use provisions, where title insurance companies can set their own rates but must register them with a state regulator who often has some authority to review and reject filed rates. Sixteen states, including Pennsylvania, which is reviewed here, are prior approval states, which are different from file and use states in that rates must be approved by the state before settlement agents can use them. However Pennsylvania also allows "rating bureaus", widely thought to act as cartels of title companies who set rates collectively. Four states "promulgate" or set rates for settlement agents, including Florida, which is where the fifth market covered in this study is located. Iowa is unique in running a state title insurance monopoly, but is not covered in the data analyzed here.

Analysis of title charges across the five metropolitan areas suggests that the amounts paid by consumers vary substantially, both between and within areas. The price and age of a housing unit and its loan-to-value ratio are found to be associated with title charges, though the association differs by market and component of title charges. In most of the markets studied, title charges for comparable properties vary substantially across title companies. Minority homebuyers pay higher total title charges than white homebuyers in Broward and Cook County. After controlling for various characteristics of homebuyers, housing units, neighborhoods, and the identities of the top title companies, more than half of the variation in total title charges remains unexplained.

The data for these analyses are from a dataset compiled by the Department of Housing and Urban Development (HUD) in 2001. Because closing costs information is not compiled digitally, they remain the best available for studying patterns of charges. Interviews with agents indicate that practices and regulations change only very slowly, although new regulations from HUD in 2008 that simplified good faith estimates are expected to have improved homebuyers' ability to shop for title insurance.

Section II describes market characteristics in each of the five metropolitan real estate markets. Section III discusses data and methods. Section IV presents regression results, and section V concludes.

II. Market Characteristics

To better understand the title insurance industry in specific real estate markets, we conducted qualitative interviews with settlement agents, underwriters, academic and legal experts. These interviews covered local title insurance industry practices and inform the empirical model and interpretation of the regression analysis. This section describes what we learned from the interviews about market characteristics.

Philadelphia and Broward County are the most constrained of the five markets studied. Philadelphia cannot be strictly categorized as a "regulated" market. State regulation is minimal and consists of approval of premiums agreed to by a rating bureau, which sets common rates on a complete package of settlement services, from title insurance underwriting through the actual closing of the purchase. Premiums are determined by a formula and increase as the price of the home increases. The market is therefore tightly constrained by rating bureau decisions, but not by a public regulator. Some smaller underwriters do not participate in the rating bureau and may charge somewhat less than the rating bureau rates.

Broward County, Florida, has the tightest title insurance regulation imposed by government of all the markets in this study. Similar to the rating bureau in Philadelphia, premiums in Broward County are a function of home price. Florida does not regulate title search or abstracting fees, which are added separately.

Maricopa County and Sacramento County are moderately regulated. The title insurance markets in those counties are both lightly regulated by the state, which requires only that rates be filed with the state prior to using them. Title insurance fees and search fees must be filed in both of these metropolitan areas, and abstracting fees must also be filed in Maricopa County.

Cook County is the least regulated of the five markets. The Cook County title insurance market is widely recognized as one of the least regulated markets in the country, leading one interviewee to refer to it as "the Wild West." A unique aspect of the title market in Cook County is that attorney fees (which are a small or non-existent settlement expense elsewhere) represent a significant share (approximately one-third) of total non-lender closing costs.

III. Data and Methods

The primary data source for this study is the Metropolitan HUD-1 Settlement Cost Database. It contains 2,839 HUD-1 settlements for FHA-insured, fixed-rate 30-year mortgage loans that were closed between May 21 and June 30, 2001, in five metropolitan areas—Philadelphia County (Pennsylvania), Maricopa County (Arizona), Cook County (Illinois), Broward County (Florida), and Sacramento County (California). These loans are for the purchase of an owner-occupied home and do not include refinancing loans. In addition, 370 HUD-1 additional settlements from the same time and locations were added from the National HUD-1 Settlement Cost Database, a parallel, nationally representative database of 7,600 HUD-1 settlements.

The 2,839 settlements from the metropolitan database and the 370 additional settlements from the national database were matched by HUD to the FHA data corresponding to the loan. These data provide basic demographic information on the borrower, as well as the price, location, and other characteristics of the house itself. The FHA data include the census block

group of the house, which allows for a match with tract-level data from the 2000 Census to the settlement data.

Most of the title insurance premium is retained by the settlement agent to cover search costs, but a portion of it is paid to the title insurance underwriter to insure against problems with the title. This portion, known as the "retention rate", is negotiated between the underwriter and the agent (Florida is the exception among our five states). In some markets, components such as "abstract or title search fees" or "title examination fees" are itemized separately, while in others they are included in the premium. In most cases, both lenders and owners receive title insurance, with coverage for the second parties usually available at a substantial discount. Attorney fees are often recorded separately on the form. The HUD-1 form provides additional lines for what are called "endorsement fees," which provide additional title insurance coverage and are usually added at the request of the lender. Standard endorsements include "restrictions, easements, and minerals" endorsements, which protect land; "environmental protection lien" endorsements, which insure against losses associated with state environmental claims on the property; and "planned unit development" endorsements, which insure that the house's development was organized in accordance with regulations.

The settlement records are supplemented with Census data by block group, obtained from the Summary File 3 (SF-3) of the 2000 Census. The SF-3 data provide neighborhood characteristics for variables that are not available for individual home purchases, such as the amount of turnover in the housing stock and the average age, education, and income levels of residents of the census block group. To investigate variation in title charges across settlement agents, we incorporated the following information from the HUD-1 forms: the settlement agent's name; the settlement agent's address; and the name of any lawyer present at settlement. The

settlement agent's name and address were then used to create unique settlement agent identifiers.[2]

Outliers in the title charge and house price data are removed. The top and bottom one percent of values in total title charges in each metropolitan area are excluded from the samples for the regressions that are presented.[3] After trimming and removing cases with missing or outlier values, the number of observations used in the five metropolitan area regressions is 3,051.

Dependent Variables in the Regression Analysis

Multivariate regression models are constructed to describe the relationship between title charges that homebuyers pay and the characteristics of the homebuyers, their houses, and their local communities. The analyses in this study combine buyer and seller charges for title services, assuming that who pays for a specific component of the costs of a home sale is fungible. If a seller nominally pays a share of the settlement costs, those costs will be passed on to the buyer through a higher home price. Payment arrangements determined at closing may be determined by factors such as the availability of cash on hand to pay closing costs, but it is assumed that all costs are ultimately passed on to the buyer.

This study examines both broad and narrow measures of title and settlement costs: total title charges, and premium plus endorsement charges. Table 1 defines these categories, and notes the line numbers from the existing HUD-1 form that were used to construct the variables.

Explanatory Variables in the Regression Analysis

We engaged in qualitative interviews with market participants to assess the likely determinants of title charges to include as explanatory variables in the regressions. The interviewees noted several determinants of the costs faced by settlement agents and title insurance underwriters that

may be passed on to consumers. They identified differences in costs as primarily resulting from variation in the difficulty of the title search required and differentials in the extent to which properties are likely to face title problems.

The interviewees pointed out that any characteristic of a property that might increase search costs has the potential to increase fees, particularly in a market where settlement agents have substantial discretion in charging fees. They suggested that search costs may be higher for older houses, because they have longer title histories. Some agents indicate that they add predetermined fees for houses older than 30 or 40 years for this reason. Properties that combine multiple prior properties raise search costs as well, since a separate search must be conducted for each title chain. The relationship between housing stock turnover and title costs is more ambiguous. Houses with greater turnover have more complicated title chains to search, with a greater likelihood of prior mistakes or liens. This is expected to increase search costs. However, more recent purchases ensure that title searches have been done more recently, reducing risk and search costs. Properties located in areas with high foreclosure rates or borrowers who pose a high risk of foreclosing might pay higher title insurance rates, either because underwriters demand a higher portion of the premium to cover the added risk or because lenders require more endorsements.

Title insurance charges can also be higher for reasons that have no apparent direct relation to insurance or search costs. For example, charges can be higher if a fee is assessed for the fairly typical simultaneous issuance of owner and lender policies. In many cases, the fee to the consumer can be quite low (e.g., $25). Nevertheless, even in the tightly regulated Florida market there is no statutory cap on charges for simultaneous policies, leaving open the opportunity for settlement agents to charge higher fees.

The interviewees suggested that premiums will tend to increase with the house price even if the relationship is not built into a set formula. One theory was that higher premiums are charged on more expensive houses for the simple purpose of cross-subsidizing lower-income consumers. In explaining closing fees specifically (sometimes called escrow fees), another expert suggested that the higher liability associated with greater amounts of funds being handled for high-priced houses justified higher charges. Another settlement agent disagreed, stating that title search and closing fees generally are fixed fees, not depending on house (or loan) value, so that variation in these fees would reflect varying practices of settlement agents and not the loan itself. Interviewees did not mention the potential for higher losses when higher loan amounts are at risk as a reason for higher premiums assessed against more expensive houses, perhaps because of the low share of premiums going to pay claims.

Based on these interviews, we defined three classes of explanatory variables and their association with title charges. The first class includes measures of characteristics of the house identified by interviewees and the literature as influencing the costs of settlement agents and underwriters, and which therefore could affect fees charged to consumers. The second class of variables includes characteristics of the homebuyer, the house, and the neighborhood that are *not directly related* to costs incurred by the title industry, and therefore should not be associated with higher or lower title insurance charges. The third class of variables is a set of fixed effects for the 10 largest agents operating in each metropolitan area. These three classes are described below:

(1) Cost-related factors. Philadelphia and Broward County settlement agencies determine title insurance premiums using an explicit formula that is dependent on house price. While the other three markets do not have a formulaic relationship between price and title charges, title agencies may charge higher premiums for more expensive properties for other reasons. The optimal time

spent examining a title is most likely greater as the risk assumed by the title insurer increases. More expensive properties represent a greater risk for insurers, but one would expect a nonlinear relationship between home price and search effort due to the diminishing productivity of effort spent in search activities. A quadratic function of home price is included to allow for a nonlinear relationship.

The qualitative analysis of the five metropolitan markets concluded that title insurance claims are more likely to be paid when properties go into foreclosure. To account for this, the models include an indicator of whether a homebuyer's loan-to-value ratio exceeds the FHA recommendation of 97.5 percent as a proxy for foreclosure risk. Older properties, which are likely to have longer title chains, are also identified as increasing search costs for agents. The models include indicators for houses that are less than 5 years old and greater than 30 years old (with properties between 6 and 30 years old as the reference group) to account for these additional search costs. Housing stock turnover, which has an ambiguous expected relationship to costs, is controlled for with the inclusion of a measure of the percentage of households that moved into the census block group in the last 5 years. Finally, since larger residential lots may increase search costs due to the potential incorporation of multiple title chains, the models control for the square footage of the lot.

(2) Non-cost-related factors. We include several non-cost-related factors in the regression models to determine whether certain homebuyers pay higher charges. Interpretation of the association of these variables with title charges is delicate; while strong empirical relationships may be a sign of discrimination, they may also suggest substantial market segmentation with certain settlement agents serving a restricted set of neighborhoods.

Minorities have a long history of housing market discrimination (Turner et al. 2002) and may also pay higher title costs. A dummy variable of whether the homeowner is a minority (black, Hispanic, other race) is included in the regression to determine whether minorities pay higher title charges than similarly situated whites. An indicator is also included for census block groups that are urban (as opposed to rural and suburban). While urbanity should not influence costs, more densely populated neighborhoods may host more title agencies and thus have lower rates due to competition.

Higher income levels for a homebuyer or a neighborhood should not increase title costs, after controlling for price, because the title search process remains the same between these buyers. However, if title agencies price discriminate, or if high-cost real estate agents partner with high-cost settlement agents, there may be a relationship between income and title charges. Title agencies may also operate in specific neighborhoods, on the basis of neighborhood income levels. The monthly income of the homebuyer and average household income in the census block group are included as control variables to determine whether these charges vary with income.

Less-educated homebuyers may be more susceptible to settlement agents who attempt to take advantage of them by raising costs, and they may lack the information or confidence to investigate and negotiate their closing costs, including their title charges. The models include two education variables: (1) the percentage of census block group residents who are twenty-five years old or older with less than a high school diploma and (2) the percentage of block group residents with a college degree. The median age of residents in a census block group is included in the models. Although age should have no impact on search costs, younger homebuyers may lack the confidence or experience to assert themselves during the settlement process. The age measure could also pick up tracts with more turnover.

(3) Settlement agent fixed effects. In a competitive market, with no cost to consumers of obtaining information, individual settlement agents should not charge substantially different fees for title insurance services after controlling for all factors that are expected to influence title costs. In a market where certain agents charge consistently higher or consistently lower fees than other agents, consumers could benefit from comparison shopping. To test whether settlement agents charge different fees, the models include fixed effects for each of the 10 largest title insurance agents in each market.[4] The coefficients on the fixed effects provide an estimate of the difference between each agent's charges and the charges of smaller agents or those for whom the agent is unknown. The results indicate whether there is a significant range of title charges between the largest agents after controlling for other relevant factors. Care is required in interpreting these results as a reflection of the nature of competition between title companies. In both a highly competitive market and a tightly regulated (or cartelized) market, these agent fixed effects are expected to be negligible. However, in a less-regulated market, especially where consumer information or shopping around is limited, substantial variation in charges would be expected across agents.

Comparison of conditions and charges across the five markets.

Summary statistics on the explanatory variables suggest that the five metropolitan areas differ in their demographic and economic conditions and in the characteristics of the housing stock (Table 2). Homebuyers with FHA mortgages in Philadelphia are much more likely to have high loan-to-value ratios than homebuyers in any other metropolitan area. This suggests that in Philadelphia, title insurance underwriters may face greater foreclosure risk or that higher leverage is more feasible for homeowners because the price-to-income ratio is low. In Cook County and

Philadelphia, housing units are older than in the other three metropolitan areas, while housing stock turnover somewhat less than to turnover elsewhere.

None of the five markets is dominated by a single settlement agency, but a few agencies control a nontrivial share of the market in Cook County, Maricopa County, and Sacramento. In Sacramento, four settlement agencies control almost 60 percent of the market for title insurance on FHA mortgages. Finally, as noted earlier, Cook County is the only market where a substantial share of homebuyers uses an attorney.

Title charges vary widely across the five metropolitan areas. Mean total title charges in Philadelphia are roughly half the mean charges in Cook and Broward Counties. While total title charges are highest, on average, in Cook and Broward Counties, premiums and endorsements are the highest in Maricopa County and Sacramento (Table 3).

The coefficients of variation for total title charges range from 0.15 to 0.30 and suggest that even after controlling for regulatory or institutional environment by focusing on specific metropolitan areas, substantial variation in title charges exists. There is greater variation within Philadelphia (0.30) and Cook County (0.25) than there is within any other metropolitan area considered in this study. We believe that the wider differential for Cook County is due to the high use of attorneys, but the finding for Philadelphia is somewhat surprising given its reputation for being tightly controlled by the rating bureau. While Eaton (2009) suggests that premiums set by the rating bureau in Pennsylvania are unnecessarily high, it has not been widely suggested that Pennsylvania experiences the wide variation in title charges that have been identified in metropolitan areas such as Washington, D.C. (Woodward 2008). The greater variation in Philadelphia is likely due to greater variation in home prices than in other markets, because it

also exhibits high variability in the premiums (in contrast to Cook County which shows lower premium variability despite high variability in total title charges). [5]

Empirical Approach and Specification

We apply ordinary least squares to estimate each dependent variable as a function of house price, house price squared (represented as $PRICE_i$), and all factors that are hypothesized to have an association with the costs of the settlement agency or the underwriter that could be passed on to consumers, as well as those noted above not expected to influence title costs. These include characteristics of individual homebuyers (X_i), as well as characteristics of a census block group where multiple homebuyers in the sample may reside (Z_c). This model also includes the 10 settlement agent fixed effects ($AGENTS_i$):

$$(1)\ Y_i = \alpha + \beta_1'PRICE_i + \beta_2'X_i + \beta_3'Z_c + \beta_4'A_i + \beta_5'B_c + \sigma'AGENTS_i + u_i$$

This model is estimated separately for both total title charges and title premium plus endorsements, in each of the five metropolitan areas.

The relationships between the dependent variables and the explanatory variables are estimated in separate regressions for each metropolitan area, because variation in institutions across metropolitan areas is expected to produce different patterns of association. It is likely that the relationship between home price and total title charges will be more substantial in Philadelphia than in the relatively unregulated Cook County, but it is not clear whether the effect of local housing turnover will differ substantially between the two markets. These regressions will assist in understanding the role of market-specific institutions in shaping title charges.

IV. Regression Results

Home Price

The price a consumer pays for his or her house has a strong association with total title charges in Philadelphia, Maricopa County, and Sacramento.[6] This relationship is likely driven by the strong association between house price and premiums; premiums are explicitly set as a function of house price in some markets. An increase in house price from $100,000 to $110,000[7] is associated with an increase in total title charges of $45 in Sacramento, a $64 increase in Maricopa County and a $36 increase in Philadelphia (Table 4). House price has a positive association with increased premiums plus endorsements in all five markets. Consumers in most markets, from those that are stringently regulated to those with light regulation, can expect to pay higher title charges for more expensive houses.

Cost-Related Factors

Characteristics of the household and neighborhood that are expected to be related to title costs had their clearest association with title charges in Maricopa County and were often significant in Philadelphia. Newer housing units are associated with reduced total title charges in both Philadelphia and Maricopa County and with reduced premiums plus endorsement charges in Maricopa County, Sacramento, and Cook County (Table 4 and 5). Other cost-related factors are often significant in Maricopa County, but are not as significant across markets. For example, more recent housing stock turnover is primarily significant in Maricopa County, where it reduced title charges. Property lot size does not have a consistent direction of effect on title charges; in some markets larger lots are associated with higher charges, while in others they are associated with lower charges. While cost-related factors are generally significant in Maricopa County and occasionally significant in Philadelphia, Sacramento, and Cook County, they are almost never associated with title charges in Broward County.

Non-cost-Related Factors

Of the five markets, only Cook County and Broward County show a consistent relationship between title charges and non-cost-related factors, such as demographic or educational characteristics of the household or neighborhood. Minority homebuyers pay higher total title charges than white homebuyers in Broward and Cook County, although they pay comparable charges in the other three markets. Being a minority homebuyer is associated with $73 more in total title charges in Cook County and $90 more in Broward County. However, most non-cost-related factors have inconsistent and insignificant associations with title charges.

Settlement Agent Fixed Effects

The amount of title charges paid varies substantially among settlement agents in all five markets. Settlement agent fixed effects are jointly significant and have a substantial range of values across all title charges, although they have the most pronounced association with total title charges, perhaps because of fungibility across title charges and the agent's objective of maximizing total charges. A larger share of the settlement agent fixed effects is significant in Broward County than in any other market. For example, of the 10 largest settlement agents in Broward County, one receives an average of $361 less in total title charges than smaller settlement agents, while another receives $167 more than the smaller settlement agents in the sample. Some caution should be taken in relying on the exact estimates, however, since the coefficients on the agent effects are imprecisely estimated. This wide variation in total title charges charged in Broward County—located in a state where premiums are tightly regulated—is likely driven by variation in *non-premium* title charges.

The settlement agent fixed effects are generally not significant for predicting total title charges in Cook County, where low regulation might have been expected to increase variation between agents. The insignificance of the fixed agent effects for total title charges in Cook County may be related to the fact that premiums are the smallest share of total title charges there of all five markets studied (due to the importance of attorney fees). Settlement agent fixed effects are more significant for non-attorney fees, but a lack of association between settlement agent fixed effects and attorney fees may be dominating the total title charge regressions.

Significant settlement agent fixed effects do not necessarily imply the exercise of market power. Since the variation between settlement agencies consists of charges that are both higher *and lower* for consumers, depending on who they do business with, the fixed effects may indicate that these settlement agents are serving fundamentally different segments within the markets. However, they also suggest there may be significant benefits to consumers from shopping around for settlement services.

V. Summary and Implications

This study examines title charges for a sample of FHA-insured closings within five metropolitan areas, defined at the county level. Previous research has shown substantial variation between states in title charges and the associated regulations and institutions. This article takes this into account by examining the variation in charges *within* markets rather than *across* markets. The empirical models in this study describe variation in two measures of title charges (total title charges, and premiums plus endorsements) within five different metropolitan areas using three classes of control variables: cost-related factors, non-cost-related factors, and settlement agent fixed effects. Cost-related characteristics of the home or neighborhood, such as house sales price and age of housing units, are generally associated with title charges in Philadelphia and

Maricopa County and less consistently associated with these charges in the other three markets. Factors not related to the costs incurred by settlement agents are generally insignificant across all five metropolitan areas, although they play a modest role in explaining title charges in Cook and Broward Counties.

In four of the five markets, there is substantial variation in charges across settlement agents, with many of the 10 largest settlement agents charging fees that are significantly higher or lower than those of smaller settlement agents or with unknown agents. The variation in charges across settlement agents is most pronounced in Broward County. In Philadelphia, significant differences across agents are not observed, likely due to the presence of the all-inclusive premium set by the rating bureau there. Substantial differences in title charges between settlement agents may indicate that settlement agents do business in fundamentally different communities, or that they work with a specific type of customer. Regardless, they also suggest that homebuyers may benefit by shopping for title insurance with more than one settlement agent. In Broward County, for example, switching from a high-cost settlement agent to a low-cost settlement agent may save a consumer over $500 in total title charges, while in Sacramento shopping around could save an average of $326 in total title charges. The potential benefits of shopping are less pronounced in other markets. These findings suggest initiatives to encourage shopping and greater competition in the title insurance market could be beneficial.

However, the variation in charges across agents is likely to exist in part because of the relationships and referrals between real estate agents and settlement agents. This may make it challenging for consumers to compare the rates of different agents. Consumers may also be constrained in shopping by the location of the house. Some of the variation between settlement agents identified in the regression models may be due to settlement agent specialization in

specific neighborhoods or developments. If this is the case, then observed differences between fees charged by different settlement agents may be attributable to the characteristics of the neighborhoods they serve. This could limit the feasibility of comparison shopping for title insurance, and to the extent that there are benefits, the geographic specificity of agents could prevent consumers from taking advantage of those benefits.

Endnotes

[1] The large variation in title charges could result from the relatively non-competitive nature of the title insurance market. Researchers argue that title charges are held substantially above cost by local industry practice, state regulation, and the infrequency with which consumers shop around (Woodward and Hall, 2010). Critics allege that in competing for the business of real estate agents and underwriters, settlement agents have less incentive to satisfy what they perceive to be a captive customer (Dumm, Macpherson, and Sirmans, 2007, GAO 2007, Owen, 1977, White, 1984). Even more sympathetic analyses highlight reverse competition as a genuine problem that is inherent in the market and requires a solution (Roussel and Rosenberg, 1981).

[2] Some cases are missing settlement agent information, so a dummy that indicates agent information missing is included in the regression analysis.

[3] Regressions that trimmed the top and bottom 0.5 and 2 percent of values were also estimated to ensure that the findings are robust to different strategies.

[4] Models with five settlement agent fixed effects are also estimated to determine the robustness of the results to the number of fixed effects specified. The results are consistent between the two specifications. Models with 10 settlement agent fixed effects are presented here to describe the range of title charges within a larger share of the market.

[5] The coefficient of variation of home prices is 0.407 in Philadelphia, much higher than in the other four markets: Cook County, 0.302; Sacramento County, 0.234; Broward County, 0.209; Maricopa County, 0.191 (not shown in table).

[6] The lack of a relationship in Cook County is likely driven by the importance of attorney fees—generally independent of house price—in this market, unlike in the other four markets studied. House price is significant in Broward County when the independent variables are only house price and house price squared. When all additional control variables are added, house price becomes insignificant in Broward County.

[7] The median house price in the metropolitan sample is somewhat higher than $110,000, so the change from $100,000 to $110,000 is used throughout the study to discuss the marginal effect of house price.

References

Birnbaum, B. An Analysis of Competition in the California Title Insurance and Escrow Industry. *Report to the California Insurance Commissioner*, 2005.

Dumm, R. E., D. A. Macpherson, and G. S. Sirmans. The Title Insurance Industry: Examining a Decade of Growth. *Journal of Insurance Regulation,* 2007, 25:4, 24–51.

Eaton, J. W. Title Insurance Reform: A Long Overlooked Target of Opportunity—the Governor and the Legislature Should Embrace It. *Testimony to the Hearing on Title Insurance Rate Regulation under the auspices of the Pennsylvania Insurance Commission*, May 28, 2009. Harrisburg, PA.

Eaton, J. and D. Eaton. The American Title Insurance Industry: How a Cartel Fleeces the American Consumer. 2007, New York: NYU Press.

GAO. See U.S. Government Accountability Office.

Lewis, H. 2010 Closing Costs Study. Bankrate.com. August 19, 2010.

McKernan, S., D.Wissoker, C. Ratcliffe, B.Van Order, and M. Scott. Descriptive Analysis of FHA Settlement Charges. Report prepared for the U.S. Department of Housing and Urban Development, Washington, DC: The Urban Institute. 2009.

Owen, B. M. Kickbacks, Specialization, Price Fixing, and Efficiency in Residential Real Estate Markets. *Stanford Law Review,* 1977, 29:5, 931–67.

Roussel, H. L., and M. K. Rosenberg. The High Price of ‘Reform’: Title Insurance Rates and the Benefits of Rating Bureaus. *Journal of Risk and Insurance,* 1981, 48:4, 638–48.

Turner, M. A., S. L. Ross, G. C. Galster, and J. Yinger. Discrimination in Metropolitan Housing Markets: National Results from Phase I HDS2000. Report prepared for the U.S. Department of Housing and Urban Development, Washington, DC: The Urban Institute, 2002.

U.S. Government Accountability Office. Title Insurance: Actions Needed to Improve Oversight of the Title Industry and Better Protect Consumers. Washington, DC: GAO, 2007.

White, L. J. The Title Insurance Industry, Reverse Competition, and Controlled Business: A Different View. *Journal of Risk and Insurance*, 1984, 51:2, 308–19.

Woodward, S. E. *A Study of Closing Costs for FHA Mortgages.* Report prepared for the U.S. Department of Housing and Urban Development, Washington, DC: The Urban Institute, 2008.

Woodward, S. E., and R. Hall. Consumer Confusion in the Mortgage Market: Evidence of Less Than a Perfectly Transparent and Competitive Market. *American Economic Review: Papers and Proceedings*, 2010, 100, 511–15.

Table 1: Definition of Title Charge Categories

Title charge	Definition	HUD-1 Line
Total title charges	Total title charges are all charges paid by consumers to the settlement agent or to attorneys for title and closing work associated with a house purchase. This is the total of all charges listed in the 1100 series of the HUD-1 form.	1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113
Premium plus endorsement charges	Premiums are typically listed in line 1108, and are paid directly to the settlement agent. When information in line 1108 is missing, lines 1109 and 1110 (indicating the price paid for owner and lender coverage) are used instead. Standard endorsements are occasionally included in line 1108 with the premium, but also appear in the extra lines provided on the HUD-1 form.	1108, 1109, 1110, 1111, 1112, 1113

Note : The HUD-1 line numbers refer to those of the HUD-1 in use through 2009.

Table 2: Explanatory Variable Means

	Cook Co. IL	Philadelphia PA	Maricopa Co. AZ	Sacramento CA	Broward Co. FL
Home price					
Price/10,000	$13.96	$7.15	$10.98	$14.17	$11.33
Loan-to-value ratio > 97.5%	15%	80%	46%	26%	55%
Cost related					
Unit <=5 years old	4%	3%	13%	3%	13%
Unit >30 years old	67%	74%	21%	28%	20%
% households that moved into unit since 1995	41%	37%	55%	51%	54%
% households that moved into unit before 1980	26%	33%	13%	15%	12%
Lot size/100	54.10	23.75	67.22	61.41	52.97
Non-cost related					
Owner is nonwhite	67%	64%	49%	35%	67%
Live in urban area	33%	83%	25%	4%	35%
House price per acre/sq. ft.	$1,059.20	$562.51	$812.80	$1,128.90	$829.04
Effective monthly income/1,000	$4.71	$3.03	$3.67	$4.46	$4.17
Avg. census block group hhld. income/1,000	$56.70	$43.89	$52.62	$51.72	$50.72
Settlement agents					
Largest Agency	20%	9%	13%	18%	5%
Second Largest Agency	13%	7%	13%	17%	3%
Third Largest Agency	10%	6%	10%	14%	3%
Fourth Largest Agency	9%	5%	9%	10%	2%
Fifth Largest Agency	8%	3%	7%	8%	2%
Sixth Largest Agency	6%	3%	6%	8%	2%
Seventh Largest Agency	3%	3%	5%	6%	2%
Eighth Largest Agency	2%	3%	5%	6%	2%
Ninth Largest Agency	2%	3%	4%	4%	2%
Tenth Largest Agency	1%	3%	4%	3%	2%
Attorneys					
Buyer attorney only	5%	1%	2%	5%	1%
Seller attorney only	50%	5%	0%	0%	10%
No attorney	6%	93%	97%	95%	88%

Data source : Metropolitan HUD-1 Settlement Cost Database, 2001.

Note : The attorney percentages do not all add up to 100 percent because of the excluded category, with both a buyer and a seller attorney present. Outside of Cook County this was extremely rare.

Table 3: Summary Statistics in Title Charges

Metropolitan area	Total charges	Premium plus endorsement charges
Mean		
Philadelphia, PA	1,007	779
Broward County, FL	1,885	886
Maricopa County, AZ	1,555	1,041
Sacramento County, CA	1,774	1,103
Cook County, IL	1,832	868
Coefficient of variation		
Philadelphia, PA	0.332	0.206
Broward County, FL	0.189	0.212
Maricopa County, AZ	0.146	0.153
Sacramento County, CA	0.146	0.15
Cook County, IL	0.253	0.168

Data source : Metropolitan HUD-1 Settlement Cost Database. Top and bottom 1 percent outliers in total title charges are trimmed.

Note : Title charges are in 2001 dollars. The "coefficient of variation" is the standard deviation normalized (divided by) the mean.

Table 4: Explaining Variation in Total Title Charges

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/$10,000	72.05***	67.99	120.0***	48.40**	31.60
	(21.80)	(44.17)	(29.86)	(19.96)	(22.83)
Price/$10,000, Squared	-1.786	-0.279	-2.939**	-0.187	-0.138
	(1.182)	(1.940)	(1.360)	(0.689)	(0.735)
Loan to Value Ratio Exceeds 97.5%	-43.76	17.62	28.72*	13.63	34.56
	(28.71)	(28.63)	(16.32)	(26.17)	(52.57)
Unit <=5 Years Old	-164.8**	-9.888	-58.62***	-63.89	-128.2
	(74.35)	(46.83)	(22.33)	(48.23)	(84.76)
Unit > 30 Years Old	-93.10***	26.81	-66.86***	16.76	-61.63*
	(30.88)	(36.05)	(18.98)	(19.45)	(36.80)
Pct. Of HH Moved to Block in Last 5 Yrs	91.22	142.2	-228.0***	-180.1**	-157.4
	(102.2)	(131.1)	(53.66)	(86.83)	(149.9)
Property Lot Size/100	0.952	-0.154	-0.257	0.416	-0.835
	(0.598)	(0.626)	(0.329)	(0.365)	(0.582)
Owner is Minority	31.42	90.36***	8.644	28.17	72.92*
	(28.48)	(31.28)	(17.83)	(18.89)	(37.27)
Owner Race Unknown	2.423	-41.23	-26.79	-136.0	150.0*
	(34.41)	(56.32)	-36.66	(143.2)	(79.60)
Live in Urban Area	-104.4***	23.39	-13.49	-20.32	7.584
	(39.69)	(29.58)	(16.82)	(44.91)	(39.88)
Monthly Effective Income/$1,000	3.491	3.292	3.979	1.946	18.23
	(10.84)	(9.356)	(5.239)	(5.073)	(11.19)
Pct. Of HH 25+ with no HS degree	0.217	-172.9	-252.0***	-179.0	294.3
	(146.5)	(233.5)	(82.20)	(125.9)	(184.5)
Pct. Of HH 25+ with college degree	210.4	-203.0	74.67	93.66	430.6*
	(160.9)	(322.4)	(111.5)	(132.4)	(242.6)
Block Avg HH Income/$10,000 Last Yr.	2.088	-0.0931	-0.918	-1.277	-3.569**
	(1.526)	(1.870)	(0.757)	(1.066)	(1.629)
Median age	-0.486	0.756	-1.199	-4.732*	-8.732*
	(2.585)	(2.055)	(1.686)	(2.510)	(4.536)
Largest Agency	19.95	125.8*	-4.477	143.5***	-80.12*
	(40.34)	(67.13)	(24.87)	(39.17)	(48.39)
Second Largest Agency	-55.60	-314.7***	58.56**	79.46**	74.27
	(53.15)	(81.56)	(24.97)	(39.47)	(55.07)
Third Largest Agency	14.80	-360.5***	-71.27***	14.33	52.34
	(49.51)	(100.1)	(26.99)	(40.63)	(60.20)
Fourth Largest Agency	104.1**	165.3*	66.35**	-55.77	17.32
	(52.61)	(90.73)	(27.89)	(43.00)	(63.38)
Fifth Largest Agency	-36.98	167.1*	4.779	-117.5***	-24.39
	(68.34)	(94.32)	(30.62)	(44.29)	(65.12)
Sixth Largest Agency	-40.86	-98.47	8.891	-11.53	94.97
	(67.94)	(91.36)	(32.09)	(45.58)	(71.99)
Seventh Largest Agency	-29.74	-193.4**	-72.81**	34.68	-147.6
	(68.56)	(94.81)	(35.32)	(48.24)	(96.63)
Eighth Largest Agency	44.09	21.77	-149.9***	-182.2***	150.3
	(70.42)	(97.73)	(36.00)	(49.09)	(124.4)
Ninth Largest Agency	165.8**	-259.5**	-58.55	27.56	17.81
	(77.36)	(101.8)	(39.10)	(52.53)	(134.7)
Tenth Largest Agency	-102.6	31.51	-20.19	-71.48	48.02
	(75.86)	(102.8)	(38.07)	(59.31)	(140.2)
Constant	607.1***	1,066***	875.6***	1,393***	1,780***
	(167.4)	(323.2)	(193.8)	(212.1)	(259.9)
Observations	559	543	616	576	757
R-squared	0.414	0.257	0.433	0.434	0.125

Data source : Metropolitan HUD-1 Database for FHA mortgages, 2001

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Explaining Variation in Premium Plus Endorsement Charges

	Philadelphia	Broward County	Maricopa County	Sacramento	Cook County
Price/$10,000	64.74***	60.70***	107.6***	63.77***	15.20**
	(4.743)	(18.01)	(20.12)	(12.58)	(7.089)
Price/$10,000, Squared	-0.638**	-0.0814	-2.771***	-1.209***	-0.0878
	(0.257)	(0.791)	(0.916)	(0.434)	(0.228)
Loan to Value Ratio Exceeds 97.5%	13.14**	11.25	19.35*	33.98**	4.097
	(6.248)	(11.68)	(11.00)	(16.50)	(16.33)
Unit <=5 Years Old	23.71	27.40	-51.16***	-63.40**	-54.66**
	(16.18)	(19.10)	(15.05)	(30.40)	(26.32)
Unit > 30 Years Old	2.160	13.38	-30.75**	-1.071	11.94
	(6.718)	(14.70)	(12.79)	(12.26)	(11.43)
Pct. Of HH Moved to Block in Last 5 Yrs	-14.84	38.29	-117.6***	-82.82	18.33
	(22.24)	(53.46)	(36.16)	(54.73)	(46.55)
Property Lot Size/100	0.315**	-0.543**	-0.0472	0.441*	-0.346*
	(0.130)	(0.255)	(0.222)	(0.230)	(0.181)
Owner is Minority	4.501	18.08	3.693	4.581	0.922
	(6.198)	(12.76)	(12.01)	(11.91)	(11.58)
Owner Race Unknown	-5.256	-48.83**	-37.48	-92.39	-14.38
	(7.488)	(22.97)	(24.70)	(90.29)	(24.72)
Live in Urban Area	38.34***	23.02*	-6.158	-5.998	-21.33*
	(8.637)	(12.06)	(11.33)	(28.31)	(12.38)
Monthly Effective Income/$1,000	0.228	-0.589	1.017	-0.842	0.796
	(2.359)	(3.816)	(3.530)	(3.198)	(3.477)
Pct. Of HH 25+ with no HS degree	15.29	-16.64	-88.29	-129.1	91.78
	(31.88)	(95.23)	(55.39)	(79.36)	(57.31)
Pct. Of HH 25+ with college degree	-68.12*	-227.1*	53.71	106.2	-1.524
	(35.00)	(131.5)	(75.14)	(83.44)	(75.34)
Block Avg HH Income/$10,000 Last Yr.	-0.265	0.704	-0.437	0.151	-0.0908
	(0.332)	(0.763)	(0.510)	(0.672)	(0.506)
Median age	0.798	1.514*	0.600	-3.103*	0.859
	(0.562)	(0.838)	(1.136)	(1.582)	(1.409)
Largest Agency	17.47**	97.63***	-14.97	45.18*	16.52
	(8.779)	(27.38)	(16.76)	(24.69)	(15.03)
Second Largest Agency	6.132	-64.95*	17.82	32.70	2.278
	(11.57)	(33.26)	(16.82)	(24.88)	(17.10)
Third Largest Agency	12.65	-116.3***	-34.92*	14.66	-10.57
	(10.77)	(40.82)	(18.19)	(25.61)	(18.70)
Fourth Largest Agency	19.05*	65.03*	29.72	48.52*	78.28***
	(11.45)	(37.00)	(18.79)	(27.11)	(19.68)
Fifth Largest Agency	3.232	93.76**	-32.90	-40.85	-12.76
	(14.87)	(38.47)	(20.63)	(27.92)	(20.22)
Sixth Largest Agency	12.28	-10.17	22.20	21.35	73.29***
	(14.78)	(37.26)	(21.62)	(28.73)	(22.36)
Seventh Largest Agency	-27.32*	-103.5***	-68.07***	13.86	6.400
	(14.92)	(38.67)	(23.80)	(30.41)	(30.01)
Eighth Largest Agency	5.837	31.80	-81.01***	-91.42***	-2.931
	(15.32)	(39.86)	(24.26)	(30.95)	(38.64)
Ninth Largest Agency	21.71	-131.6***	-20.28	-10.57	121.5***
	(16.83)	(41.53)	(26.34)	(33.11)	(41.83)
Tenth Largest Agency	4.582	93.14**	-54.28**	-1.281	226.2***
	(16.51)	(41.94)	(25.65)	(37.39)	(43.54)
Constant	288.4***	146.1	301.5**	552.9***	616.6***
	(36.42)	(131.8)	(130.6)	(133.7)	(80.70)
Observations	559	543	616	576	757
R-squared	0.880	0.552	0.477	0.455	0.217

Data source : Metropolitan HUD-1 Database for FHA mortgages, 2001

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1